FIELD SANITATION TEAM CERTIFICATION COURSE

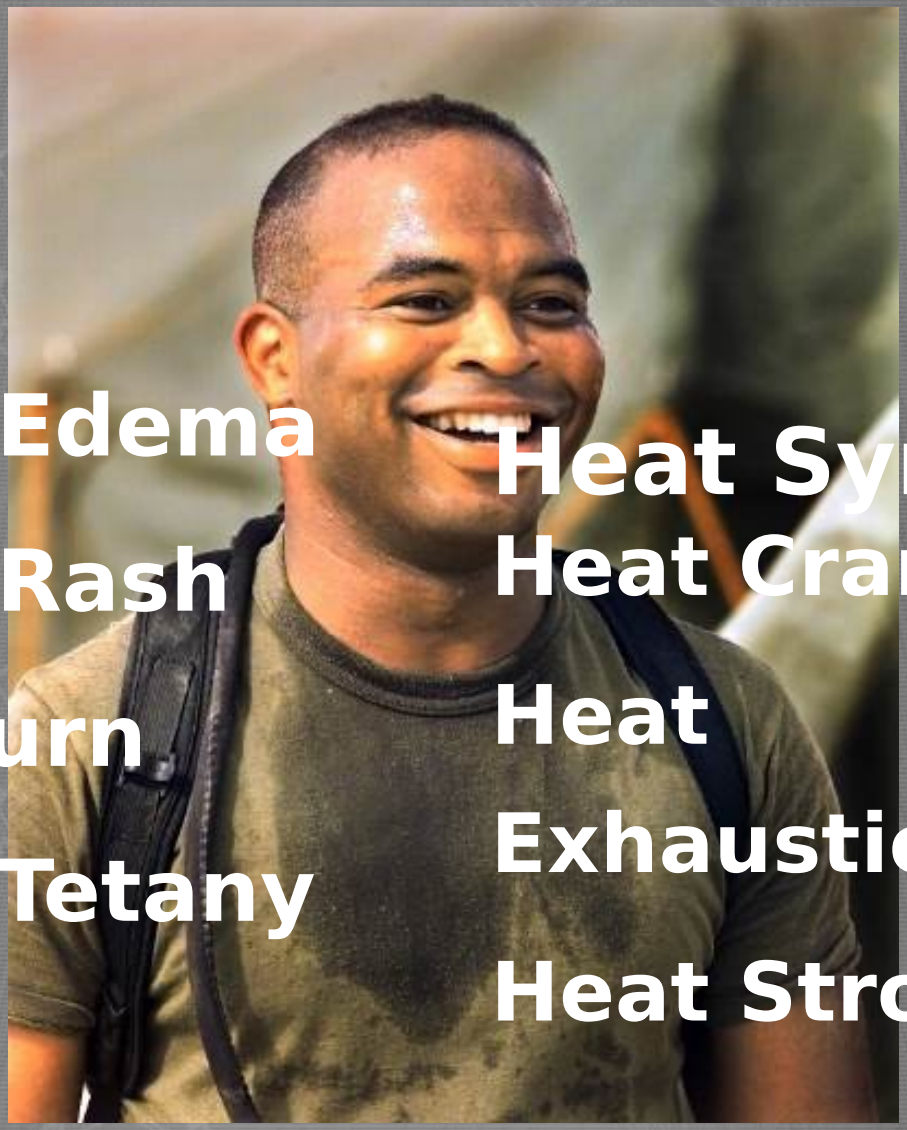
LESSON 11 - PREVENTING HEAT INJURY

FSTCC0011-1

Lesson Objectives

- Define the types of heat injury.
- Select the factors that influence heat injury.
- Select the measures to prevent heat injuries.
- Compute the WBGT index.

Types of Heat Injury



Heat Edema

Heat Rash

Sunburn

Heat Tetany

Heat Syncope

Heat Cramps

Heat Exhaustion

Heat Stroke

Heat Edema

Refers to the swelling of the hands and feet associated with heat exposure.

Heat Rash

It occurs usually in areas where the clothing is restrictive, and gives rise to a prickling sensation.

Sunburn and Heat Tetany

Sunburn

Impairs sweating over the affected skin and predisposes soldiers to heat injury.

Heat Tetany

Is related to the result of hyperventilation by an individual after being exposed to heat stress.

Parade Syncope

Temporary circulatory failure due to pooling of blood in the lower extremities when standing in a hot environment.

Heat Cramps

- *Usually involves the muscles of the arms, legs, and abdomen.*
- *May be accompanied by abnormal body temperature.*

Heat Exhaustion

Heat exhaustion is the most common form of heat casualty.

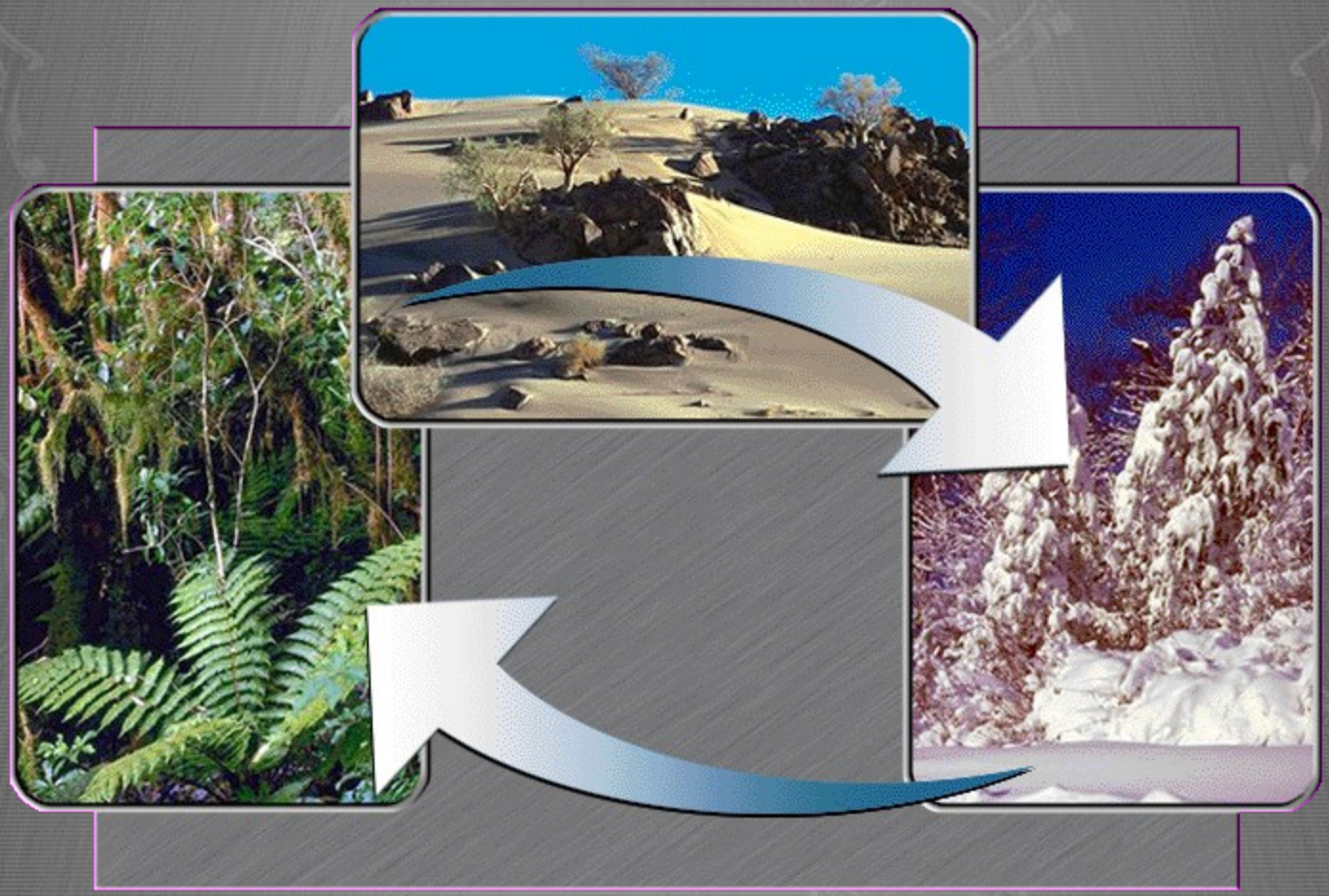
Heat Stroke

Heat stroke is a medical emergency! Treatment should start immediately.

Influencing Factors

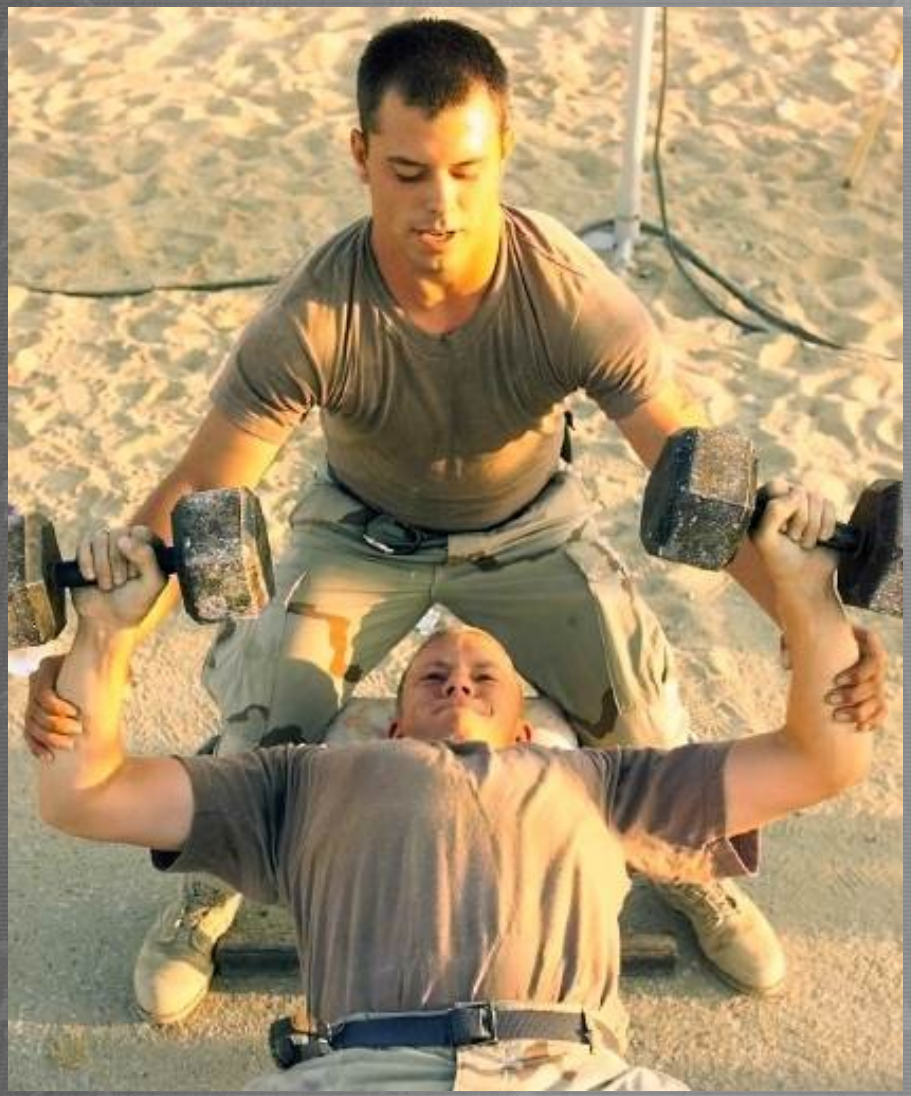
- Knowing the factors that influence heat injury will help you protect the soldiers in your unit.

Acclimatization



- How well adapted to the heat are the soldiers in your unit?

Overweight/Out of Shape



- Are the soldiers in your unit overweight or out of shape?

Fatigue

- ***Have the soldiers in your unit been performing heavy work or working for long periods of time without rest?***

Food and Alcohol

- Consume all components of your rations for adequate salt intake.

Medications

- ***Be aware of the dehydrating effects of some medications.***

Clothing

- ***Proper wear of the uniform is essential for adequate protection.***

Water Replacement

- ***Make sure you replace any water lost through sweating.***

Water Replacement - Encourage Water Consumption

- Soldiers should be given time to drink even if they don’t feel thirsty.

Water Replacement - Know Water Needs

Table 3-1. Fluid Replacement Guidelines for Warm Weather Training (Applies to Average Acclimated Soldier wearing BDU, Hot Weather).

Heat Category	WBGT Index °F	Easy Work		Moderate Work		Hard Work	
		Work /Rest	Water Intake Qt/hr	Work /Rest	Water Intake Qt/hr	Work /Rest	Water Intake Qt/hr
1	78 - 81.9	NL	1/2	NL	3/4	40/20 min	3/4
2 (Green)	82 - 84.9	NL	1/2	50/10 min	3/4	30/30 min	1
3 (Yellow)	85 - 87.9	NL	3/4	40/20 min	3/4	30/30 min	1
4 (Red)	88 - 89.9	NL	3/4	30/30 min	3/4	20/40 min	1
5 (Black)	>90	50/10 min	1	20/40 min	1	10/50 min	1

Sodium (Salt) Replacement

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Periods of Acclimatization

- Allow 14 days for soldiers to get used to the heat.

Maintain Health and Vigor

- *Good general health will improve a soldier's ability to deal with the heat.*

Establish Work/Rest Schedules

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Protection from the Environment

- Clothing reduces exposure, but it also decreases the air circulation around the body.

Educate Leaders and Soldiers

- Education should occur at all levels.
- Education can be a key factor in heat injury prevention.

Purpose/Use of the WBGT

WBGT Kit

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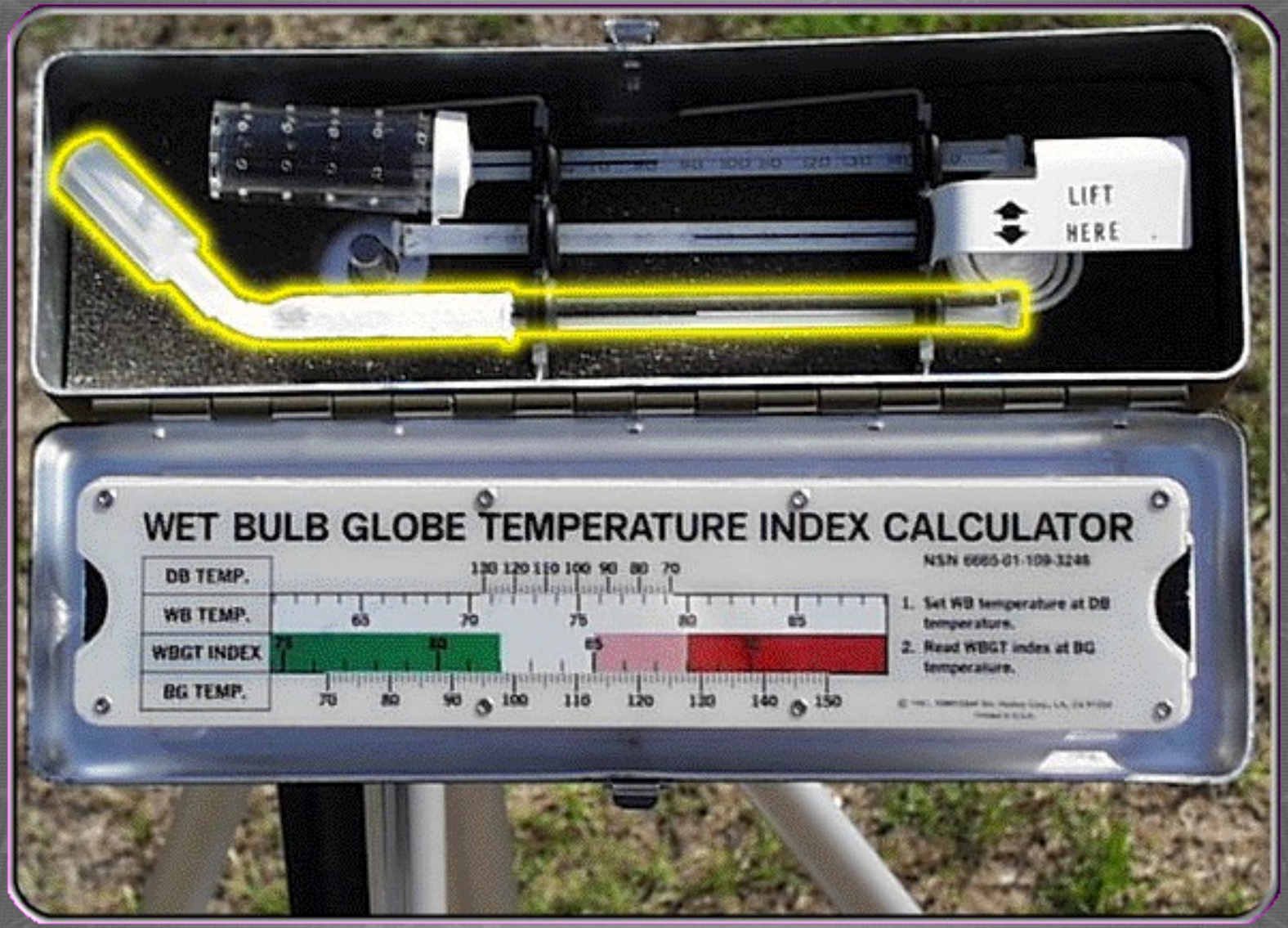
Wet Bulb Thermometer



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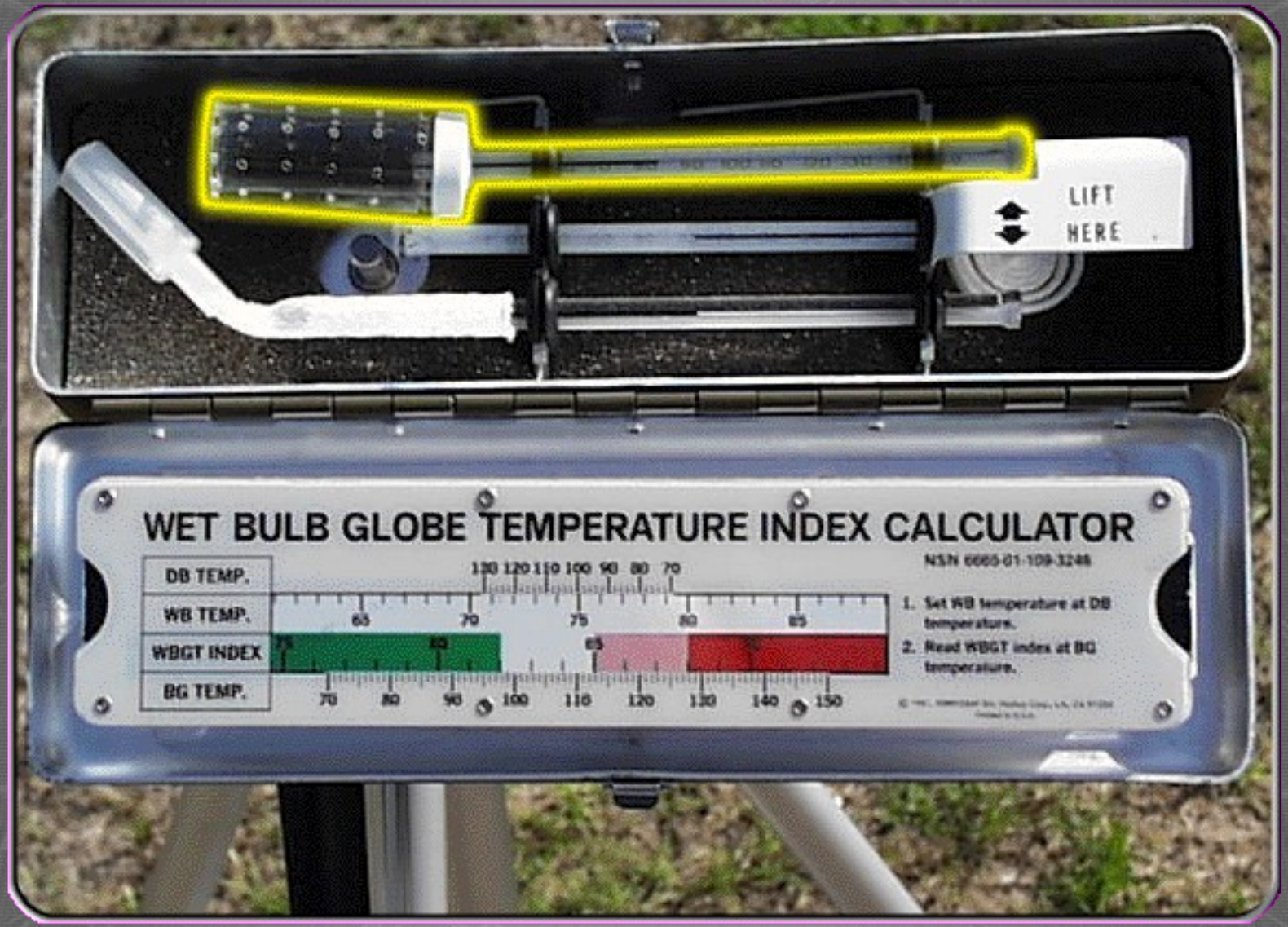
Black Globe Thermometer



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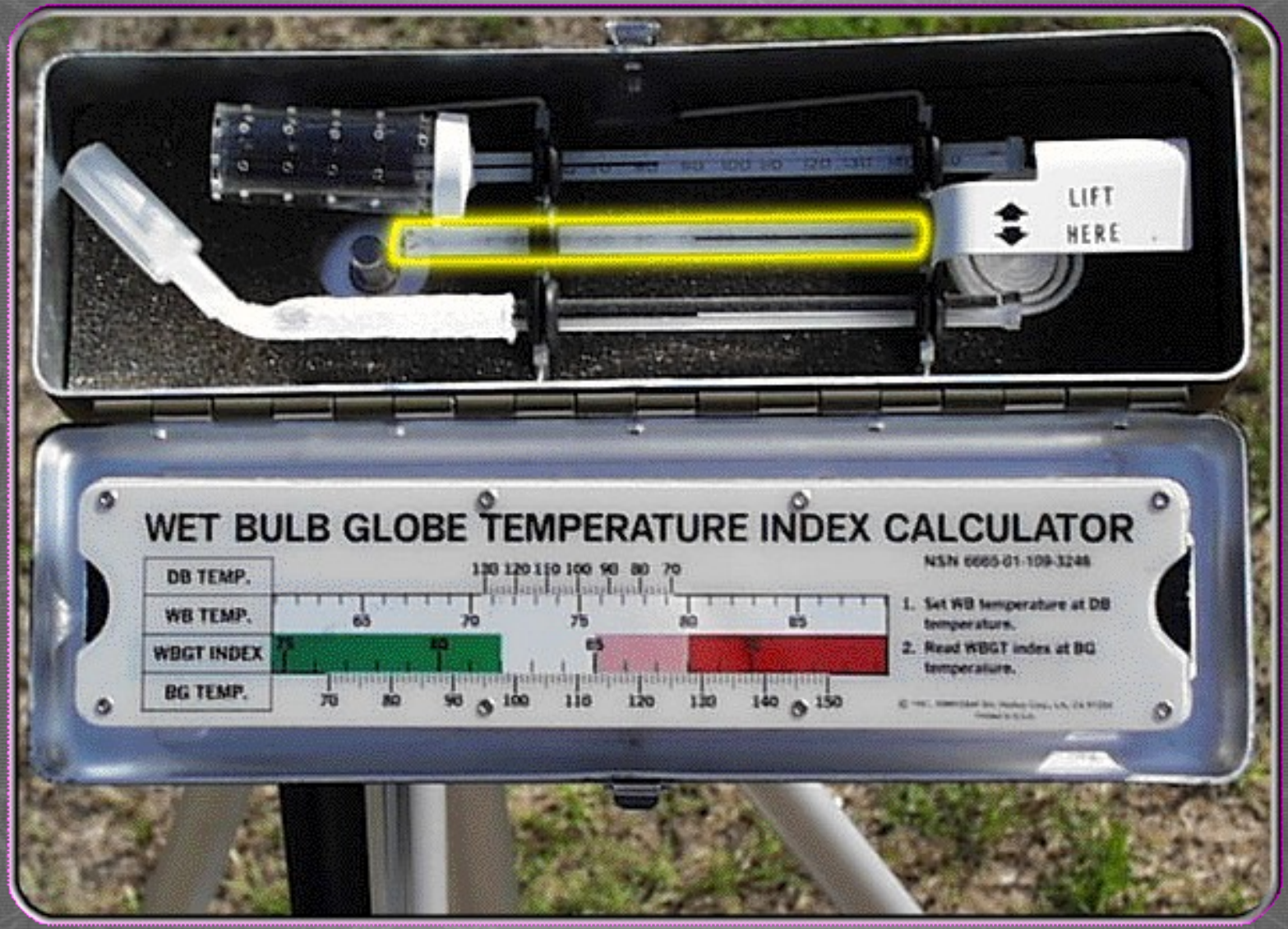
Dry Bulb Thermometer



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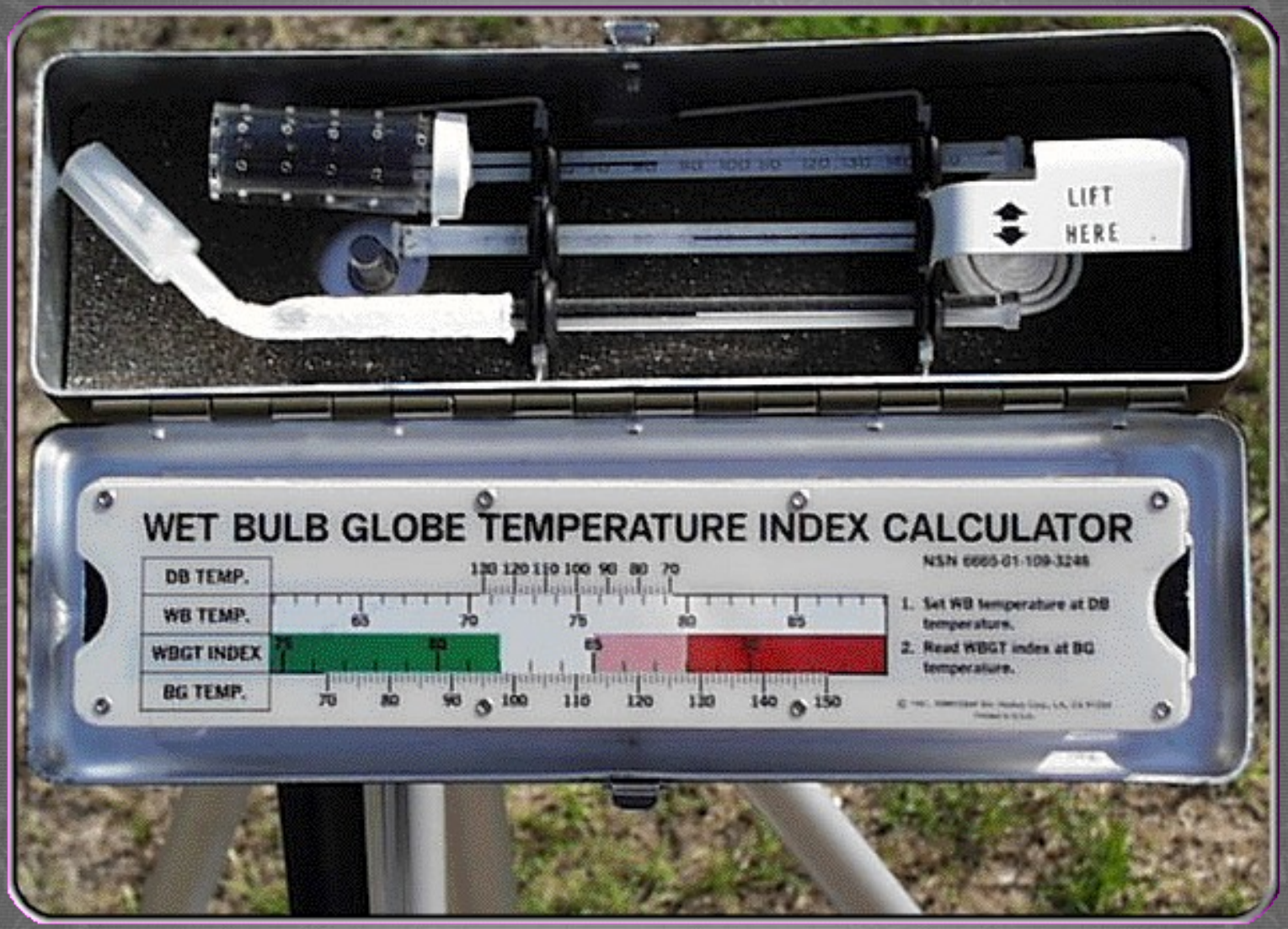
Demonstration - Using the WBGT Kit



Compute the WBGT Index

MOPP Gear and Body Armor

Add 10ºF for wearing MOPP gear during easy work, 20ºF for moderate and hard work\, and 5ºF for wearing body armor to the final WBGT index.

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SUMMARY